CLAIMS

1. An information processing apparatus for recording AV stream data on a recording medium, comprising:

first generating means for generating a first table describing the relation of correspondence between presentation time stamp and an address in said AV stream data of a corresponding access unit, or a second table describing the relation of correspondence between arrival time stamp derived from the arrival time point of a transport packet and an address in said AV stream data of a corresponding transport packet;

selection means for selecting one of said first table and the second table depending on a recording method; and

first recording means for recording the selected table on said recording medium along with said AV stream data.

2. The information processing apparatus according to claim 1 wherein said first table is EP_map; and wherein

said second table is TU_map.

3. The information processing apparatus according to claim 1 wherein said selection means selects said second table in case of non-cognizant recording.

4. The information processing apparatus according to claim 1 wherein said selection means selects said first table in case of self encoding recording.

5. The information processing apparatus according to claim 1 wherein said selection

means selects said first table in case of cognizant recording.

6. The information processing apparatus according to claim 1 further comprising:

second generating means for generating the reproduction specifying information specifying the reproduction of said AV stream data; and

second recording means for recording said reproduction specifying information generated by said second generating means on said recording medium;

said reproduction specifying information including the identification information for specifying whether the time information of the reproduction domain of said AV stream data is to be represented on the presentation time basis or on the arrival time basis.

7. The information processing apparatus according to claim 6 wherein, if said first table is recorded along with said AV stream data, said reproduction specifying information expresses the time information of the reproduction domain of said AV stream data on the presentation time basis; and wherein

if said second table is recorded along with said AV stream data, said reproduction specifying information expresses the time information of the reproduction domain of said AV stream data on the arrival time basis.

8. An information processing method for recording AV stream data on a recording medium, comprising:

a generating step of generating a first table describing the relation of correspondence between presentation time stamp and an address in said AV stream

data of a corresponding access unit, or a second table describing the relation of correspondence between arrival time stamp derived from the arrival time point of a transport packet and an address in said AV stream data of a corresponding transport packet;

a selecting step of selecting one of said first table and the second table depending on a recording method; and

a recording step of recording the selected table on said recording medium along with said AV stream data.

9. A recording medium having recorded thereon a computer-readable program for an information processing apparatus recording AV stream data on a recording medium, said program including

a generating step of generating a first table describing the relation of correspondence between presentation time stamp and an address in said AV stream data of a corresponding access unit, or a second table describing the relation of correspondence between arrival time stamp derived from the arrival time point of a transport packet and an address in said AV stream data of a corresponding transport packet;

a selecting step of selecting one of said first table and the second table depending on a recording method; and

a recording step of recording the selected table on said recording medium along with said AV stream data.

10. A program for having a computer, controlling an information processing apparatus recording AV stream data on a recording medium, execute

a generating step of generating a first table describing the relation of correspondence between presentation time stamp and an address in said AV stream data of a corresponding access unit, or a second table describing the relation of correspondence between arrival time stamp derived from the arrival time point of a transport packet and an address in said AV stream data of a corresponding transport packet;

a selecting step of selecting one of said first table and the second table depending on a recording method; and

a recording step of recording the selected table on said recording medium along with said AV stream data.

11. An information processing apparatus for reproducing AV stream data from a recording medium, comprising:

reproducing means for reproducing one of a first table describing the relation of correspondence between presentation time stamp and an address in said AV stream data of a corresponding access unit and a second table describing the relation of correspondence between arrival time stamp derived from the arrival time point of a transport packet and an address in said AV stream data of a corresponding transport packet, from said recording medium, which has said first table or said second table recorded thereon depending on a recording method; and

control means for controlling the outputting of said AV stream data based on the reproduced table.

12.   An information processing method for reproducing AV stream data from a recording medium, comprising:

a reproducing step of reproducing one of a first table describing the relation of correspondence between presentation time stamp and an address in said AV stream data of a corresponding access unit and a second table describing the relation of correspondence between arrival time stamp derived from the arrival time point of a transport packet and an address in said AV stream data of a corresponding transport packet, from said recording medium, which has said first table or said second table recorded thereon depending on a recording method; and

a controlling step of controlling the outputting of said AV stream data based on the reproduced table.

13. A recording medium having recorded thereon a computer-readable program for an information processing apparatus recording AV stream data on a recording medium, said program including

a reproducing step of reproducing one of a first table describing the relation of correspondence between presentation time stamp and an address in said AV stream data of a corresponding access unit and a second table describing the relation of correspondence between arrival time stamp derived from the arrival time point of a transport packet and an address in said AV stream data of a corresponding transport

packet, from said recording medium, which has said first table or said second table recorded thereon depending on a recording method; and

a controlling step of controlling the outputting of said AV stream data based on the reproduced table.

14. A program for having a computer, controlling an information processing apparatus recording AV stream data on a recording medium, execute

a reproducing step of reproducing one of a first table describing the relation of correspondence between presentation time stamp and an address in said AV stream data of a corresponding access unit and a second table describing the relation of correspondence between arrival time stamp derived from the arrival time point of a transport packet and an address in said AV stream data of a corresponding transport packet, from said recording medium, having said first table or said second table recorded thereon depending on a recording method; and

a controlling step of controlling the outputting of said AV stream data based on the reproduced table.

15. A recording medium having recorded thereon one of a first table describing the relation of correspondence between presentation time stamp and an address in said AV stream data of a corresponding access unit and a second table describing the relation of correspondence between arrival time stamp derived from the arrival time point of a transport packet and an address in said AV stream data of a corresponding transport packet, depending on a recording method.

16. An information processing apparatus for recording AV stream data on a recording medium, comprising:

generating means for generating the reproduction specifying information made up of the first information indicating a main reproducing path and the second information indicating a subsidiary reproducing path; and

recording means for recording said AV stream data and the reproduction specifying information on said recording medium.

17. The information processing apparatus according to claim 16 wherein said main reproducing path is a path for the post-recording of audio data.

18. The information processing apparatus according to claim 16 wherein said first information is main_path and wherein said second information is the Sub-path.

19. The information processing apparatus according to claim 16 wherein said second information includes

the type information indicating the type of said subsidiary reproducing information;

a filename of said AV stream referenced by said subsidiary reproducing path;

in- and out-points of said AV stream of said subsidiary reproducing path; and

the time on said main path at which the in-point of said reproducing path starts in synchronization on the time axis of said main path.

20. An information processing method for an information processing apparatus recording AV stream data on a recording medium, comprising:

a generating step of generating the reproduction specifying information made up of the first information indicating a main reproducing path and the second information specifying a subsidiary reproducing path reproduced in synchronism with said main reproducing path; and

a recording step of recording said AV stream data and said reproduction specifying information on said recording medium.

21. A recording medium having recorded thereon a computer-readable program for an information processing apparatus recording AV stream data on a recording medium, said program including

a generating step of generating the reproduction specifying information made up of the first information indicating a main reproducing path and the second information specifying a subsidiary reproducing path reproduced in synchronism with said main reproducing path; and

a recording step of recording said AV stream data and said reproduction specifying information on said recording medium.

22. A program for having a computer, controlling an information processing apparatus recording AV stream data on a recording medium, execute

a generating step of generating the reproduction specifying information made up of the first information indicating a main reproducing path and the second information specifying a subsidiary reproducing path reproduced in synchronism with said main reproducing path; and

a recording step of recording said AV stream data and said reproduction specifying information on said recording medium.

23. An information processing apparatus for reproducing AV stream data from a recording medium, comprising:

reproducing means for reproducing, from said recording medium, reproduction specifying information made up of the first information indicating a main reproducing path and the second information specifying a subsidiary reproducing path reproduced in synchronism with said main reproducing path; and

control means for controlling the outputting of said AV stream data based on the reproduced reproduction specifying information.

24. An information processing method for reproducing AV stream data from a recording medium, comprising:

a reproducing step of reproducing, from said recording medium, reproduction specifying information made up of the first information indicating a main reproducing path and the second information specifying a subsidiary reproducing path reproduced in synchronism with said main reproducing path; and

a controlling step of controlling the outputting of said AV stream data based on the reproduced reproduction specifying information.

25. A recording medium having recorded thereon a computer-readable program for an information processing apparatus recording AV stream data on a recording medium, said program including

a reproducing step of reproducing, from said recording medium, reproduction specifying information made up of the first information indicating a main reproducing path and the second information specifying a subsidiary reproducing path reproduced in synchronism with said main reproducing path; and

a controlling step of controlling the outputting of said AV stream data based on the reproduced reproduction specifying information.

26. A program for having a computer, controlling an information processing apparatus recording AV stream data on a recording medium, execute

a reproducing step of reproducing, from said recording medium, the reproduction specifying information made up of the first information indicating a main reproducing path and the second information specifying a subsidiary reproducing path reproduced in synchronism with said main reproducing path; and

a controlling step of controlling the outputting of said AV stream data based on the reproduced reproduction specifying information.

27. A recording medium having AV stream data recorded thereon, wherein the recording medium has recorded thereon the reproduction specifying information made up of the first information indicating a main reproducing path and the second information specifying a subsidiary reproducing path reproduced in synchronism with said main reproducing path.